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**To:** [Fogg, Mindy](#); [Hingtgen, Robert J](#); [Gungle, Ashley](#)  
**Cc:** [Ryan R. Waterman](#); [Megan Lawson](#)  
**Subject:** Fwd: FW: Management of Solar Panels as Universal Waste [IWOV-Active.FID2300049]  
**Date:** Tuesday, October 15, 2013 11:22:26 AM  
**Attachments:** [2013-10-08-DTSC-disapproval-decision.pdf](#)

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Please see the attached denial of the Department of Toxic Substances Control's (DTSC) draft regulations regarding designating PV panels as Universal Waste as they stood in early September.

**State of California  
Office of Administrative Law**

**In re:**  
**Department of Toxic Substances Control**

**Regulatory Action:**

**Title 22, California Code of Regulations**

**Adopt sections:** 66273.7.1  
**Amend sections:** 66260.10, 66261.6,  
66261.9, 66273.1, 66273.9,  
66273.32, 66273.33,  
66273.34, 66273.36,  
66273.39, 66273.51

**Repeal sections:**

**DECISION OF DISAPPROVAL OF  
REGULATORY ACTION**

**Government Code Section 11349.3**

**OAL File No. 2013-0819-03S**

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**SUMMARY OF REGULATORY ACTION**

On August 19, 2013, the Department of Toxic Substances Control (Department) submitted to the Office of Administrative Law (OAL) its proposed regulatory action to amend various sections in title 22, division 4.5, chapters 10, 11, and 23 of the California Code of Regulations (CCR). The proposed amendments would regulate photovoltaic (PV) modules as hazardous waste, define PV modules, create exemptions to hazardous waste management requirements for these PV modules, and provide requirements for these exemptions.

On October 1, 2013, OAL notified the Department that OAL disapproved the proposed regulations because the regulations failed to comply with the consistency and clarity standards of Government Code section 11349.1 and the Department failed to follow procedures required by the Administrative Procedure Act (APA). This Decision of Disapproval of Regulatory Action explains the reasons for OAL's action.

**DECISION**

OAL disapproved the above-referenced regulatory action for the following reasons:

1. The proposed regulations failed to comply with the consistency standard of Government Code section 11349.1, subdivision (a)(4);
2. The proposed regulations failed to comply with the clarity standard of Government Code section 11349.1, subdivision (a)(3); and
3. The Department failed to follow the required APA procedures by omitting to:
  - a. summarize and respond to all of the public comments made regarding the proposed action pursuant to Government Code section 11346.9, subdivision (a)(3); and

- b. include in the rulemaking file all data and other factual information, technical, theoretical, and empirical studies or reports, if any, on which the agency is relying, pursuant to Government Code section 11347.3, subdivision (b)(7).

All APA issues must be resolved prior to OAL's approval of any resubmission.

## DISCUSSION

The above regulatory adoption and amendments by the Department must satisfy requirements established by the part of the California Administrative Procedure Act that governs rulemaking by a state agency. Any regulation adopted, amended, or repealed by a state agency to implement, interpret, or make specific the law enforced or administered by it, or to govern its procedure, is subject to the APA unless a statute expressly exempts the regulation from APA coverage. (Gov. Code, sec. 11346.)

Before any regulation subject to the APA may become effective, the regulation is reviewed by OAL for compliance with the procedural requirements of the APA and for compliance with the standards for administrative regulations in Government Code section 11349.1. Generally, to satisfy the standards a regulation must be legally valid, supported by an adequate record, and easy to understand. In this review OAL is limited to the rulemaking record and may not substitute its judgment for that of the rulemaking agency with regard to the substantive content of the regulation. This review is an independent check on the exercise of rulemaking powers by executive branch agencies intended to improve the quality of regulations that implement, interpret, and make specific statutory law, and to ensure that the public is provided with a meaningful opportunity to comment on regulations before they become effective.

### 1. Consistency

Government Code section 11349, subdivision (d), defines "consistency" to mean "being in harmony with, and not in conflict with or contradictory to, existing statutes, court decisions, or other provisions of law." As discussed below, aspects of the proposed regulations are inconsistent with the Health and Safety Code statute being implemented.

To begin, on page 4 of its notice of proposed action, the Department describes the broad objectives of the proposed regulations. One of these objectives is to "[d]esignate hazardous waste solar modules, that are *either RCRA hazardous waste or non-RCRA hazardous waste*, as universal waste provided that the solar modules are recycled, not disposed, and are managed in accordance with the existing requirements of chapter 23 (Standards for Universal Waste Management)." (Emphasis added.)

Another objective discussed in the notice is to "[e]stablish a conditional exemption in section 66261.6 (recyclable materials) for *non-RCRA hazardous waste* solar modules that are collected, transported and recycled by being reclaimed as part of a reclamation program administered by a solar module vendor (as defined in the proposed regulations)." (Emphasis added.)

The information contained in the rulemaking record indicates that the proposed regulations conflict with and are not in harmony with existing provisions of law, particularly Health and Safety Code section 25150, subdivision (d), which specifies:

The department shall *not* adopt or revise standards and regulations which result in the imposition of any requirement for the management of a **RCRA waste** that is *less stringent* than a corresponding requirement adopted by the Environmental Protection Agency pursuant to the federal act. [Emphasis added.]

In other words, a proposed regulation that governs RCRA hazardous wastes must be at least as stringent as the corresponding federal requirements.

### **1.1. PV Modules Designated as Universal Waste**

The Department's objective to designate both RCRA hazardous waste and non-RCRA hazardous waste as universal waste raises two concerns. First, the Department acknowledges on the sixth page of its Initial Statement of Reasons (ISOR) that universal waste requirements are, in fact, more flexible by nature:

The regulations establish a new management approach for solar modules in the same way as other universal wastes. Limited treatment (e.g., removal of the junction box and junction cables from the module) is allowed without authorization. Disposal in a hazardous landfill is allowed, but solar modules destined for disposal must be managed as hazardous waste (i.e., must be manifested) if they are not recycled. The requirements for most handlers are minimal in an effort to achieve greater compliance.

Thus, if one of the Department's objectives is to designate both RCRA and non-RCRA hazardous wastes as universal waste, which by nature provides less stringent requirements, it appears that the proposed regulations are not in harmony with and conflict with Health and Safety Code section 25150, subdivision (d) (quoted above).

This leads to a second concern. The notice cites section 25150 of the Health and Safety Code as an authority and reference citation and specifies, on page 5, that "Health and Safety Code section 25150, subdivisions (a) and (e)...provide statutory authority to develop regulations for the management and recycling of hazardous wastes." However, in reading the other authority and reference citations listed in the regulation text, it is not clear that section 25150 grants the Department the authority to designate PV modules as universal waste.

Health and Safety Code section 25150.6 allowed the Department to exempt a hazardous waste management activity from one or more requirements of division 20, chapter 6.5 of the Health and Safety Code, but only until January 1, 2008. (Health & Saf. Code., sec. 25150.6, subd. (g).) When this statutory provision initially sunset in 2002, the California Legislature extended the sunset for one year. When it sunset again in 2003, the state Legislature extended the sunset once more until January 1, 2008, but has not extended the sunset again since then.

In addition, when this statutory authority was in effect, it still prescribed restrictive conditions. Subdivision 25150.6(f)(1) states:

On or after January 1, 2002, the department may, by regulation, exempt a hazardous waste management activity from one or more of the requirements of this chapter pursuant to this section only if the regulations govern the management of one of the hazardous wastes listed in subparagraphs (A) to (E), inclusive, of paragraph (2), the regulations identify the hazardous waste as a universal waste, and the regulations amend the standards for universal waste management set forth in Chapter 23... of Division 4.5 of Title 22 of the California Code of Regulations.

The aforementioned paragraph (2), subparagraphs (A) to (E), did not include PV modules. Thus, it appears that the California Legislature did not intend to grant the Department broad and unlimited authority to designate hazardous waste as universal waste, but rather to provide such an authority with specific restrictions on its applicability.

In fact, during the process of extending the sunset date to January 1, 2008, the comments from the Senate Rules Committee state that “[f]rom 1997 through 2002, DTSC had *temporary authority* to establish alternative hazardous waste management standards.... *This authority expired on January 1, 2003, which prevents DTSC from adding to or modifying its universal waste regulations....* The sponsor...proposes to extend this sunset date to January 1, 2008, without naming any other changes to the program.” (Emphasis added.) (Sen. Rules Com., Off. Of Sen. Floor Analyses, 3d reading analysis of Assem. Bill No. 2877 (2003-2004 Reg. Sess.) June 21, 2004, p. 2.)

Thus, if the proposed regulations are not consistent with Health and Safety Code section 25150, subdivision (d), the Department would not appear to have the authority to adopt and amend the proposed regulations.

### **1.2. Conditional Exemption for Non-RCRA Hazardous Waste**

The Department’s additional objective to establish a conditional exemption for non-RCRA hazardous wastes raises three concerns. First, the rulemaking record does not demonstrate that PV modules are non-RCRA hazardous wastes. To the contrary, the record shows that some PV modules may be RCRA hazardous wastes.

Section 66260.10 of title 22 of the California Code of Regulations defines non-RCRA hazardous wastes as “all hazardous waste regulated in the State, other than RCRA hazardous waste as defined in this section. A hazardous waste is presumed to be a RCRA hazardous waste, unless it is determined pursuant to section 66261.101 that the hazardous waste is a non-RCRA hazardous waste.” In other words, the Department must demonstrate that PV modules are in fact non-RCRA hazardous wastes, otherwise the PV modules would be presumed to be RCRA hazardous wastes.

Section 66261.101, subdivision (a), of title 22 of the California Code of Regulations provides that a hazardous waste is a non-RCRA hazardous waste if it meets each of its listed criteria, one of which requires that “it does not exhibit any of the characteristics of ignitability, corrosivity, reactivity or toxicity as identified in sections 66261.21...and 66261.24(a)(1).”

However, on the eighth page of the ISOR, the Department states that “[a]vailable information indicates that *some solar modules* are likely to exhibit the characteristic of toxicity due to heavy metals (e.g., cadmium, copper, lead, and selenium) and thus would be classified as hazardous waste if disposed.” (Emphasis added.) Given that cadmium, lead, and selenium are listed in section 66261.24(a)(1) as contaminants that define the characteristic of toxicity, the ISOR has to explain why PV modules are in fact non-RCRA hazardous wastes.

The information in the rulemaking file does not show this. For this reason, the PV modules are still presumed to be RCRA hazardous wastes. Consequently, the proposed regulations appear to be inconsistent with Health and Safety Code section 25150, subdivision (d), quoted above because they provide exemptions to hazardous waste requirements, that is, they are less stringent than corresponding federal laws.

This leads to a second concern. If the proposed regulations are not consistent with the prohibition prescribed in Health and Safety Code section 25150, subdivision (d), this raises the issue of whether the Department has the authority to adopt and amend the proposed regulations pursuant to Health and Safety Code section 25150, subdivisions (a) and (e). It appears that the Department’s interpretation of these subdivisions, as illustrated by its proposed regulatory action, may alter, amend or enlarge the scope of the power conferred upon it. (1 Cal. Code Regs., sec. 14, subd. (c)(1)(A).)

A third concern relates to a potential clarity issue. If “*some solar modules*,” as the ISOR puts it, are RCRA hazardous wastes, then some may be non-RCRA hazardous wastes. However, without further explanation of what makes a PV module a non-RCRA hazardous waste, the proposed regulation would present information in a format that is not readily understandable by persons directly affected. (1 Cal. Code Regs., sec. 16, subd. (a)(5).) A PV module vendor, for example, would not know whether the module is conditionally exempted or not.

Due to the limited information provided in the file, OAL cannot evaluate whether the Department has the authority to adopt and amend the proposed regulations. OAL reserves the right to review for the “Authority” standard upon resubmission of this action. However, the Department can demonstrate its proposed regulations are consistent with Health and Safety Code section 25150, subdivision (d) by showing that the PV modules are non-RCRA hazardous wastes or, if they are RCRA hazardous wastes, that the proposed regulations are not less stringent than corresponding federal laws. These additional explanations must be made available to the public for comment for at least 15 days pursuant to Government Code section 11346.8, subdivision (c), and section 44 of title 1 of the California Code of Regulations before adopting the regulations and resubmitting this regulatory action to OAL for review. Additionally, any comments made in relation to these additional explanations must be summarized and responded to in the final statement of reasons. (Gov. Code, sec. 11347.1, subd. (d).)

## **2. Clarity Standard**

In adopting the APA, the Legislature found that the language of many regulations was unclear and confusing to persons who must comply with the regulations. (Gov. Code, sec. 11340, subd. (b).)

Government Code section 11349.1, subdivision (a)(3), requires that OAL review all regulations for compliance with the clarity standard. Government Code section 11349, subdivision (c), defines “clarity” to mean “written or displayed so that the meaning of the regulations will be easily understood by those persons directly affected by them.”

The “clarity” standard is further defined in section 16, title 1, of the CCR, OAL's regulation on “clarity,” which provides:

In examining a regulation for compliance with the “clarity” requirement of Government Code section 11349.1, OAL shall apply the following standards and presumptions:

- (a) A regulation shall be presumed not to comply with the “clarity” standard if any of the following conditions exists:
  - (1) the regulation can, on its face, be reasonably and logically interpreted to have more than one meaning; or
  - (2) the language of the regulation conflicts with the agency’s description of the effect of the regulation; or...
  - (5) the regulation presents information in a format that is not readily understandable by persons “directly affected;”....
- (b) Persons shall be presumed to be “directly affected” if they:
  - (1) are legally required to comply with the regulation; or
  - (2) are legally required to enforce the regulation; or
  - (3) derive from the enforcement of the regulation a benefit that is not common to the public in general; or
  - (4) incur from the enforcement of the regulation a detriment that is not common to the public in general.

In this regulatory action, the Department failed to comply with the clarity standard of the APA.

## **2.1. Proposed Definition of “Photovoltaic (PV) Module”**

The Department proposed to amend both sections 66260.10 and 66273.9 by adding a definition for the term “Photovoltaic (PV) Module.” Subdivision (a)(1)(A)(i) of the definition states that a “PV Module” includes an “intact PV module” which in turn includes:

PV modules or individual cells of disassembled PV modules that contain glass panes on one or both sides that are cracked or otherwise damaged, provided that the size and shape of the module or cell remain identical to those of a new PV module or of a cell...”

The wording in this definition is unclear because the affected public would not know whether the language is referring to the glass panes that may be “cracked or otherwise damaged” or the actual PV module.

Further, if the language is referring to the PV module, then it is unclear whether subdivision (a)(1)(A)(i) is an exception for subdivision (b)(1) of the definition, which states that PV module does *not* mean “physically-damaged, -deteriorated, or -altered PV modules....” That is, the definition can be interpreted to say that a PV module that is physically damaged, -deteriorated, or -altered is not a PV module unless its size and shape remain identical to those of a new PV module. But if subdivision (a)(1)(A)(i) is not an exception for subdivision (b)(1), then a PV module may be damaged according to subdivision (a) or it may not be damaged according to subdivision (b). Thus, because this definition may be interpreted to have more than one meaning, it does not meet the clarity standard.

## **2.2. Proposed Amendment to Add Subdivision 66261.6(a)(3)(D)**

Subdivision 66261.6(a)(3) provides a list of materials that are not subject to regulation under title 22, division 4.5 of the California Code of Regulations. Proposed subdivision 66261.6(a)(3)(D) adds the following to that list:

PV modules destined for reclamation within the United States and its territories in a program administered by a PV module vendor provided that the conditions in subsection (a)(8) of this section are met. However, such PV modules are subject to regulation as described in subsection (a)(8)(J) of this section upon arrival at a designated facility located in California.

The second sentence of this proposed provision appears to be redundant. It suggests that subdivision (a)(8)(J) is somehow different from subdivisions (a)(8)(A) through (a)(8)(K). Also, the word “however” at the beginning of the second sentence is confusing because it suggests that it somehow qualifies or modifies the first sentence. The proposed regulation is unclear because it presents information in a format that is not readily understandable by persons directly affected.

## **2.3. Proposed Adoption of Subdivision 66273.7.1(a)**

Proposed subdivision 66273.7.1(a) states that “[t]he requirements of this *article* apply to PV modules...” (emphasis added); however, the ISOR specifies that “persons who manage [PV] modules... [are required] to manage those [PV] modules in accordance with the applicable requirements contained in *chapter 23*.” (Emphasis added.) Because the proposed regulation requires compliance with “article” but the ISOR describes the regulation as requiring compliance with “chapter 23,” the language of the regulation conflicts with the Department’s description of the effect of the regulation. (1 Cal. Code. Regs., sec. 16(a)(2).)

For the reasons discussed above, the Department failed to comply with the clarity standard of the APA. The Department must make proposed modifications available to the public for comment for at least 15 days pursuant to Government Code section 11346.8, subdivision (c), and section 44 of title 1 of the California Code of Regulations before adopting the regulations and resubmitting this regulatory action to OAL for review. Additionally, any comments made in relation to these proposed modifications must be summarized and responded to in the final statement of reasons. (Gov. Code, sec. 11347.1, subd. (d).)

### **3. Failure to Follow Required APA Procedures**

The Administrative Procedure Act (APA) requires agencies to follow specific procedures. In this rulemaking action, the Department failed to follow the required procedures by omitting to summarize and respond to all of the public comments and neglecting to include in the rulemaking file all the documents that the agency relied on in amending and adopting the proposed regulations.

#### **3.1. Missing Summary and Response to Public Comments**

Government Code section 11346.9, subdivision (a), provides that an agency proposing regulations shall prepare and submit to OAL a final statement of reasons. One of the required contents of the final statement of reasons is a summary and response to public comments. Specifically, Government Code section 11346.9, subdivision (a)(3), requires that the final statement of reasons include:

(a)(3) A summary of *each* objection or recommendation made regarding the specific adoption, amendment, or repeal proposed, together with an explanation of how the proposed action has been changed to accommodate *each* objection or recommendation, or the reasons for making no change. This requirement applies only to objections or recommendations specifically directed at the agency's proposed action or to the procedures followed by the agency in proposing or adopting the action....  
[Emphasis added.]

In this rulemaking action, the Department provided a 45-day public comment period for its originally proposed text and two separate 15-day public comment periods for substantial changes to the text of the regulations. During these notice periods, a number of written comments were received, but the Department did not summarize and respond to numerous comments. The following are some examples:

- A) **Silicon Valley Toxics Coalition (SVTC), written comment dated October 1, 2012:** "SVTC is gravely concerned that DTSC does not have the regulatory authority to develop the necessary recycling programs to support the declassification of hazardous PV to universal waste."
- B) **First Solar, written comment dated September 28, 2012:** "Section 66273.33 only purports to handle the management of modules that are 'accidentally or unintentionally broken.' If handling practices result in the intentional breakage of solar modules, they may not be covered by the exemption."
- C) **First Solar, written comment dated September 28, 2012:** "[U]nder the universal waste rule, when a solar module breaks it becomes a waste subject to the rule (under Section 66273.7.1), but *at the same time* it also becomes a waste not eligible for the rule because it is completely excluded from the definition of a solar module (under Section 66273.9)."
- D) **First Solar, written comment dated September 28, 2012:** "[T]he universal waste rule defines 'intact' solar modules to include 'cracked' panels (in other words, merely being

cracked does not make a panel 'broken), but Section 66273.7.1 states that modules become wastes when they are 'cracked' *because they are no longer intact.*"

- E) PV Recycling, LLC, written comment dated October 1, 2012:** "First and foremost, it is not explained how the UW option will be financed."
- F) PV Recycling, LLC, public comment made at the October 1, 2012 public hearing:** At the October 1, 2012 public hearing, the commenter stated "I ask myself from looking at the regulations, the proposed regulations, it's unclear who is going to finance this. It's unclear who is going to do the education campaign. It's unclear who is going to do the implementation and then who is going to monitor for compliance."
- G) Solar Energy Industries Association, written comment dated October 1, 2012:** "[T]he second sentence of section 66261.6(a)(3)(D), as currently drafted, is redundant and should be removed. That sentence appears to indicate that subpart (a)(8)(H) is somehow different from subparts (a)(8)(A)-(G). However, every subpart under (a)(8) is prescriptive, so there is no apparent meaning to the second sentence of (a)(3)(D). Not only is the sentence unnecessary, but the word "however" is confusing because it indicates that the sentence somehow qualifies the first sentence. Since the sentence has no independent meaning and could lead the regulated community to believe that it somehow modifies the first sentence of (a)(3)(D), it should be removed."

These comments were not summarized or responded to in the final statement of reasons. However, the above list of comments is not an exhaustive list. The Department is required to summarize and respond to all comments that were not summarized and responded to before resubmitting the rulemaking action to OAL for review.

### **3.2. Documents Relied Upon to be Included in the Rulemaking File**

Government Code section 11347.3, subdivision (b)(7), requires that the rulemaking file include:

- (7) All data and other factual information, technical, theoretical, and empirical studies or reports, if any, on which the agency is relying in the adoption, amendment, or repeal of a regulation....

The ISOR for this rulemaking record identified several documents that the Department relied on in adopting and amending the proposed regulations. One document was not included in the rulemaking file: "Little Smiles on Long Face," Photon International, March 2009. (Cell and module production survey, 2008.)

The Department is required to add the omitted document mentioned above to the rulemaking file upon resubmitting the regulatory action to OAL.

## **4. Miscellaneous**

The following issues must be addressed prior to resubmitting its rulemaking action to OAL:

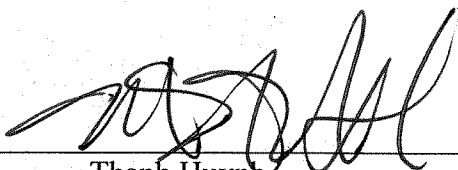
- A) Clarify proposed amendment to subdivision 66261.6(a)(8)(A).** The manner in which the provision is drafted suggests that the term “under reasonably foreseeable conditions” has requirements laid out further in the section. Placing the term between commas would clarify that it is the management of PV modules that must be “pursuant to the requirements of this section.”
- B) Subdivision 66261.6(a)(8)(E) refers to “the date the PV module became a waste.”** It is not certain how one determines the date when a PV module becomes a waste. Perhaps it would be appropriate to use subdivision 66273.7.1(c) to define when a PV module becomes a waste. Then adding the phrase “pursuant to subsection (c) of section 66273.7.1,” or some other appropriate statutory or regulatory reference, after “waste” would clarify the use of “waste” in subdivision 66261.6(a)(8)(E).
- C) Remove “of” in subdivisions 66261.6(a)(8)(G) and 66261.6(a)(8)(H).** The proposed regulations currently states “person who transports of PV modules....” The Department must correct this grammatical error and remove the word “of” in both subdivisions.
- D) Use of unidentified “subsection” and “subparagraph” in subdivision 66261.6(a)(8)(K).** To ensure clarity, subdivision 66261.6(a)(8)(K) must specifically state which provision in the regulation it is referring to when it uses the term “subsection” and “subparagraph.” Given that the word “subsection” is used throughout the proposed regulations, perhaps it would be appropriate to use that term here as well. For example, it may be appropriate for the proposed regulation to state “subsection 66261.6(a)(8)(K)” and to replace “subparagraph” with “subsection 66261.6(a)(8)(K)1.1.”
- E) Renumber references to other regulatory provisions.** First, subdivision 66261.6(a)(8)(K)3. states “notifications required pursuant to subsection (a)(8)(J) of this section” but the cited provision does not address notifications. Second, subdivision 66273.33(d)(1)(B) states “shall be deemed to comply with subsection (d)(1)(B)1.a. of this section.” However, the provision referred to cannot be found. And third, subdivision 66273.51(e) states “unless PV modules are contained as described in section 66273.33, subsection (d)(1)(B).” But the provision referred to does not address a containment requirement. The proposed regulation must cite the correct provisions in order to be clear.
- F) Correct spelling.** Subdivision 66273.33(d)(2) contains the word “proided” which is misspelled. This word must be correctly spelled as “provided.”
- G) Remove inappropriate authority and reference citations.** First, section 25529 does not appear in the Health and Safety Code. Second, sections 25158.1, 25158.2, 25158.4, and 25187.7 of the Health and Safety Code have been repealed. And third, section 273.6 of title 40 of the Code of Federal Regulations is simply marked as “[Reserved].” These provisions must be removed as authority and reference citations where listed at the end of a regulation.

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**CONCLUSION**

For the reasons stated above, OAL disapproved this regulatory action proposed by the Department. If you have any questions, please contact me at (916) 323-6824.

Date: October 8, 2013

  
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